

average of 84.8 per cent is certainly close enough to 85 to be acceptable to most scientific bodies as supporting Doctor Fishbein's statement.

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And in *The Journal of the Maine Medical Association* of June, Dr. R. Bliss of Bluehill writes:

Passing strange and entirely regrettable is the inclination of the retired physician to wield the devastating pen when nearly every country in the world offers such opportunities for the less deadly sword. Dr. Hugh Cabot, retired from a life profoundly influenced by the Mayo Clinic, has felt constrained to write a book, "The Patient's Dilemma." . . .

As might be expected, the author's experience and environment have led him to exalt the group clinic which he knows so well and to charge the physicians of small villages, of whom he obviously knows nothing, with abysmal ignorance. . . .

When the country physician calls upon a middle-aged patient who has never been clinic serviced, he immediately forwards the patient to the nearest clinic where a group of specialists mill him through and give to him, or sell to him, "a good article" of medical care. The physicians of the small towns and villages will be expected to attend short, simple illnesses and send all others to the regional clinic. These country doctors are to be keen, well educated young men who, by frequent courses in the great clinical centers, continue to be good diagnosticians surcharged with good old country doctor qualities and yet content, year after year, to act in their capacity as transfer agents for the clinical centers. Just what vitamin is to be fed them to produce this bovine contentment is not revealed in Doctor Cabot's book. . . .

That an able surgeon, stepping down from a trail pure and white with notable achievement, should deliberately seek to blacken and smear the road over which the next generation of young men must travel, at least illustrates another way of bearing up under the strain of retirement.

No penalty is severe enough for the unclean bird who literally befouls his own nest.

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However, snap judgment should not be made. Physicians who are interested in these problems may well take the time to read Doctor Cabot's book, and then form their own conclusions concerning his breadth of view and the value of his criticisms and suggestions.

**Other State Association and Component County Society News.**—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 36.

## EDITORIAL COMMENT†

### TOXIN FROM SUPERFICIAL BURNS

Wense,<sup>1</sup> of the Institute for Experimental Pathology in the University of Innsbruck, currently reports that animals immune to histamin are not resistant to the autotoxin produced by superficial burns. From this he concludes that histamin plays

but a minor rôle in the autointoxication following local heat injury.

The shock and early death which follow superficial burns are presumed to be due to autointoxication. This concept has apparently been long established. Aqueous extracts of skin from burned areas are highly toxic for experimental animals. Transplantations of skin and establishment of circulation between normal animals and those superficially burned transfer the toxin. Earlier attempts to identify the toxic agent, however, led to the generally accepted conclusion that the toxic factor is probably not a heat-denatured normal protein, but some fairly simple, nonantigenic protein split product. Attention was soon centered on histamin as the probable factor, this substance being present in relatively large amounts in burned skin and in the blood of experimentally burned animals.

The fact that laboratory animals can be rendered highly refractory, or relatively "immune," to histamin, suggested to Wense a practical method of testing this conclusion. In his experiments guinea pigs were given daily subcutaneous injections of histamin for a period of about two weeks, at the end of which time the animals were able to tolerate forty to sixty times the usual lethal dose of histamin. These histamin-refractory animals were then tested for their relative susceptibility to superficial burns. Large skin areas of normal control animals under ether anesthesia were dipped for two to two and one-half minutes into hot water (80 degrees centigrade). Animals with this degree of scalding usually developed profound shock, from which death resulted in about two hours. A shorter immersion (one-half to one minute) usually caused little or no shock, but death usually resulted in from one to three days. No appreciable changes in this normal symptomatology or fatality rates were observed in parallel test with the guinea pigs immune to histamin. Indeed, the histamin-immune animals seemed slightly more susceptible to superficial burns than the normal controls. The conclusion seems inevitable that histamin is not the essential autotoxic factor.

Wense confirmed this conclusion by therapeutic tests with the histamin-destroying intestinal ferment ("torantil") recently isolated by European biochemists.<sup>2</sup> This intestinal enzyme injected intravenously will protect laboratory animals from multilethal doses of histamin. In Wense's hand, however, the enzyme had no demonstrable therapeutic effect in the autointoxication following superficial burns.

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### HAZARDS OF PATCH TESTING

Patch tests, to be of value, must be properly interpreted. When considered in the light of the patient's history, however, such tests are of prime importance in the study of both contact dermatitis

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

<sup>1</sup> Wense, Theodore: Zeitschr. f. Immunitätsforsch., 97:100 (Nov.), 1939.

<sup>2</sup> Rigler, R.: Münch. med. Wschr., 1:15, 1936.

and exfoliative dermatitis. Such tests are of little or no value in other types of cutaneous manifestations. It must be remembered, though, that the application of an allergen or hapten to the skin is not without danger.

Primary irritants, as exemplified by undiluted gasoline, may produce an area of necrosis leading to a sluggishly healing ulcer and unsightly scarring. The victim of such a reaction is seldom grateful to the physician applying such a test. For this reason, articles such as that of Rostenberg and Sulzberger,<sup>1</sup> giving the strengths of substances which are non-irritating, should be in the possession of every practitioner who performs skin tests.

A second type of disconcerting reaction is the generalization of a previously localized eruption following the application of a patch test. This is especially true in preëxfoliative arsenical dermatitis,<sup>2</sup> where a mild pruritic eczematoid patch may assume the alarming aspect of a true edematous desquamative exanthem. In one case, in my experience, the application of a 10 per cent cocain ointment produced a generalized morbilliform eruption.

Patch testing may lead to sensitization of previously uninvolved skin. A healed patch test on the arm, for instance, may exhibit activity in recurrent eruptions which were previously confined to the hands.

The fourth, and most serious complication, is the development of constitutional symptoms following the application of a contact test. In one case under my care, the application of a nicotine-containing plant spray to the unbroken skin of the patient's back resulted in a severe attack of nausea and vomiting, occurring within fifteen minutes after the test had been put on. Despite the immediate removal of the test, and the thorough cleansing of the patient's back, this episode lasted for more than two hours. It was accompanied by marked pallor. The patient, who was sixty years of age, had never used tobacco in any form during his lifetime.

Therefore, it is obvious that one should consider all these factors before adopting a routine of indiscriminate patch testing of all patients exhibiting sensitization dermatoses.

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#### METHOD OF TREATMENT OF TRICHOMONAS VAGINALIS VAGINITIS

It is not the purpose of this brief paper to consider whether the trichomonad is a contaminant, is in symbiosis, or is the cause of the typical vaginitis in which it is found, but to report a method of treatment. This particular technique of treatment, in the hands of certain of my associates and myself, has uniformly produced prompt and oftentimes spectacular cure. In fact, one or two applications will not infrequently produce apparent

cure in cases which have for months stubbornly resisted many other methods and agents of treatment. In addition, it is simple, not costly, and lacks the discomfort to the patient of certain of the more drastic cleansing procedures. No local or general evidences of toxic effect have been noted, as have occasionally been reported from other materials.

An ordinary bivalve speculum is used and the vault of the vagina exposed. All easily removed mucus and secretion are wiped free with cotton swabs. Caroid powder is then applied by applicators to the cervical canal and upper vagina. It is used liberally, and sufficient time is allowed to elapse for all of the tenacious secretion and mucus to be liquefied or freed. Ordinarily one or two minutes are adequate. All this residue of powder and liquefied secretion is then carefully wiped out of the cervical canal and vagina, rotating the speculum as necessary. This operation, properly carried out, leaves the cervical and vaginal mucosa clean and dry.

The treatment is then completed by the application of 20 per cent aqueous solution of mercurochrome. Lesser concentrations of this drug do not have as rapid an effect, and do not leave the vaginal tract as dry. A tightly wound applicator, saturated in this solution, is first placed in the cervical canal and is allowed to remain *in situ* until the treatment is completed. The entire cervix and vagina are then carefully painted with the mercurochrome solution, rotating the speculum as needed to cover every portion of the surface. The speculum is withdrawn and finally the applicator in the cervix removed. Inasmuch as the mercurochrome solution stains clothing badly, it is wise to place a cotton plug or tampon in the lower vagina after the treatment.

These patients are usually treated twice weekly; and, while one treatment will frequently produce an apparent cure, we feel it is wise to use three or four applications. We then follow with one treatment after each menstrual period for two or three months, which greatly reduces the possibility of recurrence. The patients who have recurrences are further advised. Careful instruction is given in the method of cleansing after defecation; they are prohibited from using the standard sanitary napkin and are instructed to use menstrual tampons, and, if the vulvar and perineal hair is profuse, they are advised to keep the area shaved. Recurrence, in spite of these precautions, necessitates investigation of the sexual partner for the possibility of a trichomonas infection of the urethra or prostate.

#### SUMMARY

1. A simple and extremely efficacious method of treatment of trichomoniasis is presented.
2. The prevention of recurrences is briefly discussed.

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<sup>1</sup> Rostenberg, Adolph, Jr., and Sulzberger, Marion B.: A List of Substances for Patch-Testing and the Concentrations to Be Employed, *J. Invest. Dermat.*, 2:93, (June), 1939.

<sup>2</sup> Epstein, Ervin: Sensitivity to Both Trivalent and Pentavalent Arsenicals, *Arch. Dermat. and Syph.*, 36:964 (Nov.), 1937.

There is no reason for tuberculosis to be five times more prevalent in some communities than it is in others.—Thomas Parran, M. D., U. S. P. H. S.